Evaluation of the New Jersey Department of Health and Senior Services Comprehensive Tobacco Control Program

Baseline Measures

Prepared by:

UMDNJ School of Public Health
University of Medicine & Dentistry of New Jersey

University of Medicine and Dentistry of New Jersey – School of Public Health

Prepared for:

New Jersey Department of Health and Senior Services

Donald T. DiFrancesco, Acting Governor

Christine Grant, Commissioner

April 2001

Acknowledgements

The New Jersey Comprehensive Tobacco Control Program (CTCP) is operated by the New Jersey Department of Health and Senior Services (DHSS) under the direction of Commissioner Christine Grant. The CTCP is administratively located within the Division of Addiction Services, Prevention Services Unit. This report was prepared for DHSS by the University of Medicine & Dentistry of New Jersey-School of Public Health through funding from the Master Settlement Agreement.

The baseline evaluation was completed by:

UMDNJ-School of Public Health Evaluation Team

- George Rhoads, MD, MPH, *Principal Investigator*
- Cristine Delnevo, PhD, MPH, *Principal Investigator*
- Diane Abatemarco, PhD, MSW
- Raychel Adler, MPH
- Mary Hrywna, MPH
- Ira Kaufman, MS
- M. Jane Lewis, DrPH
- Edmond S. Malka, MPH
- Shyamala Muthurajah, MPH
- Mona Shah, MPH

We would like to acknowledge the valuable assistance of the following organizations:

- Office on Smoking and Health, Centers for Disease Control and Prevention
- New Jersey Department of Education
- Mathematica Policy Research, Inc.
- Correct Communications

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Executive Summary

The economic and social burden of tobacco in New Jersey can be no surprise to anyone. The evidence is conclusive that tobacco is the single most preventable cause of death and disability. However, this report attempts to draw a more complete picture of how tobacco affects New Jersey residents. Primarily through the Master Settlement Agreement, the New Jersey Department of Health and Senior Services has funded a Comprehensive Tobacco Control Program (CTCP) with the recommended components outlined in CDC's *"Best Practices for Comprehensive Tobacco Control Programs."* As part of this program, a series of baseline surveys and ongoing data collection systems were implemented to serve as the basis for the State's evaluation and surveillance activities.

The purpose of this report is to:

- Describe how multiple measures from multiple sources were used to obtain baseline data and how they will continue to document changes over time.
- Present baseline measures of tobacco use, attitudes, and policies in New Jersey.
- Explain these results in the context of the State's Comprehensive Tobacco Control Program (CTCP).

Overall, the baseline evaluation showed that in New Jersey…

Tobacco Use

… 10.5% of middle school students and 27.6% of high school students were current cigarette smokers.

… White high school students had the highest smoking prevalence (33.1%) relative to Black (15.2%) or Hispanic (26.1%) high school students.

… young adults, 18 to 24 year olds, had a higher rate of cigarette use (28.1%) than all other adult age groups and 1 out of 3 White young adults were current cigarette smokers.

… 18.4% of all adults were current cigarette smokers. Prevalence of cigarette use declines with age.

Quitting

… after the birth of their baby, many women who quit during pregnancy began smoking again, showing a 55% increase in smoking prevalence.

… furthermore, young mothers (18-24) demonstrated an 89% increase in smoking after the birth of their baby.

… roughly half of youth and young adult smokers reported at least one quit attempt in the past year. Approximately one quarter of adults and almost three-quarters of pregnant women reported a quit attempt in the past year.

… less than half (45%) of middle and high school students were asked whether or not they smoked by their physician.

… slightly more than half (56%) of public middle and high schools offered their students on- or off-site referrals for quitting.

… among current smokers who tried to quit in the past year, the most commonly used method of quitting was medication (21%), followed by self-help materials (8%), and attending a program (2.4%).

… among adults who have never tried to quit, more than a third (39%) indicated they would use a toll-free phone number to get information on quitting and nearly half of those with Internet access (48%) indicated they would use the Internet for information on quitting.

Environmental Tobacco Smoke (ETS)

… only 1 out of 3 schools had comprehensive tobacco control policies that prohibited the use of multiple tobacco products by students and faculty indoors, on school grounds, in school vehicles, and at school sponsored events.

… nearly half (44%) of youth reported living with someone who smokes cigarettes.

… two-thirds of all adults reported that they completely banned smoking in their homes (65%). However, current smokers were less likely (31%) to ban smoking in their home than people who never smoked (72%) or former smokers (67%).

… one of 10 adults who worked in a plant or factory reported that their workplace had no "official smoking policy" for indoor work or common areas.

Acceptability of Tobacco Use

… approximately half of all adults believed that smoking should be banned in work and restaurant areas.

… 79% of 18-24 year olds and 69% of 25-34 year olds reported seeing an anti-tobacco advertisement in the past six months.

… close to one third of adults felt that tobacco companies were completely (7%) or mostly (22%) to blame for the health problems faced by smokers.

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The data presented in this report build a strong foundation for continued tobacco surveillance and illustrate a need for action at the state and community levels. This information provides New Jersey decision-makers with the important evidence to justify allocating sufficient and sustained resources to tobacco control efforts.

Introduction

In addition to costing New Jersey more than $1.7 billion dollars in medical expenditures, nearly 13,000 New Jerseyans die each year from preventable deaths due to smoking.[1] For these reasons, the New Jersey Department of Health and Senior Services has developed the Comprehensive Tobacco Control Program. The goals of the Comprehensive Tobacco Control Program (CTCP) of the New Jersey Department of Health and Senior Services (DHSS) are to: **(1)** decrease the initiation of tobacco use by youth under 18 years of age and young adults 18-24 years of age; **(2)** increase the number of youth and adult tobacco users who initiate cessation treatment; **(3)** decrease exposure to environmental tobacco smoke (ETS); **(4)** decrease the acceptability of tobacco use among all populations and; **(5)** reduce disparities related to tobacco use and its effects among different population groups.[2]

Primarily through the tobacco Master Settlement Agreement and limited funds from tobacco retailer licensing fees, DHSS has implemented and expanded a number of tobacco control initiatives based on the five goals of the Comprehensive Tobacco Control Program. Community programs include Communities Against Tobacco (CAT) Coalitions in every county and local health departments which work at the community level to implement change relating to tobacco use and environmental tobacco smoke; Tobacco Age of Sale Enforcement Compliance checks to ensure that merchants are not selling tobacco products to minors; and Statewide Initiatives relating to community policies and ordinances. New Jersey REBEL *(Reaching Everyone by Exposing Lies)* is a youth-led anti-tobacco statewide campaign located in every New Jersey county. Information, support, and counseling for tobacco dependence is provided through New Jersey Quitnet™ *(nj.quitnet.com)*, New Jersey Quitline™ *(1-866-nj-stops)* and local Quitcenters. The New Jersey Anti-Tobacco Media and Communications Campaign delivers public education campaigns to promote quitting and prevention of tobacco use through television, radio, print, and the Internet. The comprehensive evaluation plan incorporates quantitative and qualitative data collection from all components of the CTCP to monitor the extent to which program components are achieving expected outcomes, to provide regular feedback relating to the implementation of programs, and to reveal options for modifying activities to further improve outcomes.

As such, DHSS deemed it critical to obtain a baseline assessment of tobacco use behaviors throughout the State as a precursor to evaluating the effectiveness of current tobacco control programs and subsequently, to improve future program planning. Program evaluation is fundamental to

The Mission of the Comprehensive Tobacco Control Program is to decrease sickness, disability, and death among New Jerseyans associated with the use of tobacco and exposure to environmental tobacco smoke.

determining how tobacco use attitudes, norms, and behaviors change over time in response to program activities. An external evaluator of New Jersey's CTCP provides an independent, objective, and credible source of information and expertise that will guide program design and implementation.

Because of the profound need for rigorous evaluation data by an independent evaluator, DHSS granted funding to the University of Medicine and Dentistry of New Jersey – School of Public Health (UMDNJ-SPH) from the Master Settlement Agreement. In accordance with this objective, UMDNJ-SPH has completed a comprehensive assessment of current tobacco attitudes, knowledge, and behaviors among youth and adults in New Jersey.

Given the multiple program goals of the DHSS, comprehensive baseline measures required the use of several data sources. As such, this report provides a written summary of key data collected from the following surveillance and evaluation activities implemented by UMDNJ-SPH:

- **The Youth Tobacco Survey (YTS)** measured attitudes and behaviors related to tobacco among middle and high school students.
- **The Adult Tobacco Survey (ATS)** assessed the prevalence of tobacco use among adults, existence of ETS policies, and attitudes about tobacco.
- **The Pregnancy Risk Assessment Monitoring System (PRAMS)** evaluated the prevalence of tobacco use among pregnant women, ETS, and cessation issues.
- **The Media Tracking Study** identified and monitored tobacco industry marketing and tobacco control messages seen by New Jersey audiences.
- **The School Tobacco Survey (STS)** addressed issues of school health education and tobacco policies.

These baseline measures have far-reaching implications for designing and evaluating the effectiveness of various programs such as perinatal health interventions, tobacco dependence treatment, media campaigns, and restrictive smoking policies in schools and workplaces.

A full copy of this report can also be viewed at:
http://www.state.nj.us/health/as/tcpbaseline.pdf

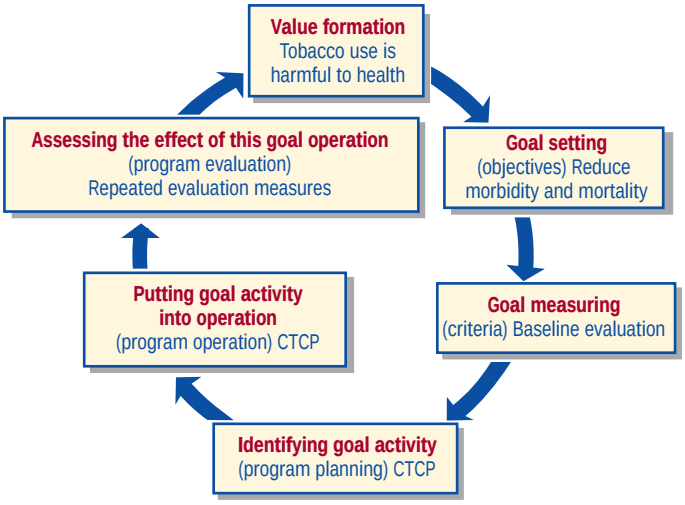
Methodology

Overview

The methodology conceptualized for the Tobacco Evaluation Baseline utilized a *goal based evaluation model.*[3] The evaluation plan focuses on the activities; outputs; and initial, intermediate, and long-term outcomes outlined in the State's program logic model, to direct measurement activities *(Appendix 1)*. The advantage of using a goal-based evaluation approach is that it allows for objectivity. That is, the values of the evaluator do not interfere with the outcome of the evaluation. Figure 1 depicts the goal based evaluation model.

This evaluation approach starts with a value. In this case, the value was formed on the idea that tobacco use is harmful to health. In accordance with this value, the CTCP sets goals and objectives that attempt to reduce tobacco morbidity and mortality in the State. The evaluation plan designed by UMDNJ determined the appropriate criteria to accurately measure the specified goals and objectives. Using the baseline information, CTCP can modify and create measurable goals and objectives to be used in program planning and implementation.

Figure 1: The evaluation process



Adapted from: Evaluation Research (p. 34) by E.A. Suchman, 1967.

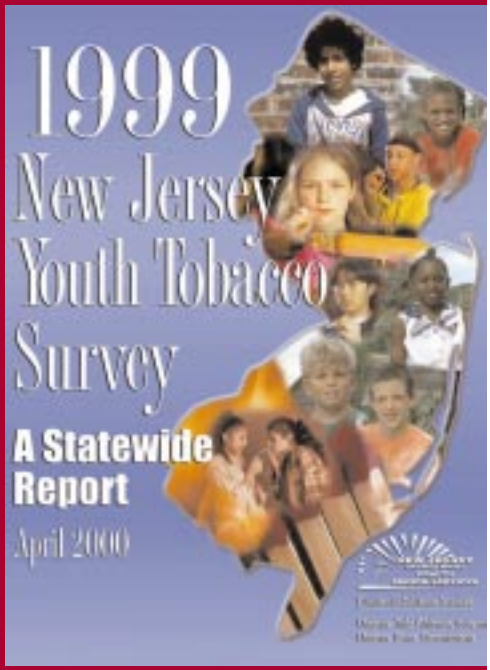
In "*Best Practices for Comprehensive Tobacco Control*,"[4] the Centers for Disease Control and Prevention (CDC) assert that appropriate evaluation methods and surveillance activities include participation in national surveillance systems such as the Behavioral Risk Factor Surveillance System (BRFSS), the Youth Risk Behavior Surveillance System (YRBSS), and Pregnancy Risk Assessment Monitoring System (PRAMS). Furthermore, *Best Practices* suggest that tobacco specific surveys compliment broader surveillance, including a Youth Tobacco Survey (YTS), an Adult Tobacco Survey (ATS), a School Tobacco Survey (STS), and Policy Tracking. As such, the baseline

evaluation employed by UMDNJ-School of Public Health is consistent with CDC recommendations.

Additionally, the evaluation used for the baseline assessment employed a triangulation approach or the use of multiple data elements or methods to observe differences from several perspectives. For example, data on youth were collected in the YTS and STS. Appendix 1 also demonstrates how multiple data sources are used to examine the same objective. Triangulation strengthens study validity, which allows the evaluator to infer that the measures lead to valid conclusions. The major data collection systems include: YTS, ATS, PRAMS, Media Tracking, and STS. Detailed methodologies for each specific data system are described below.

Youth Tobacco Survey (YTS)

The purpose of the YTS was to determine statewide prevalence of tobacco use behavior among middle and high school students. The self-administered survey addressed eight content areas: tobacco prevalence, access to tobacco products, smoking cessation, smoking intention, perceived consequences of tobacco use, mass media, awareness of tobacco industry strategies, and ETS. The YTS was administered to 8798 middle school students (grades 7-8) in 84 schools and 7318 high school students (grades 9-12) in 80 high schools located throughout New Jersey in the Fall of 1999. An overall participation rate of 71% was achieved. Prevalence rates for cigarette use for middle and high school students by gender and race are presented with confidence intervals in Appendix 2.



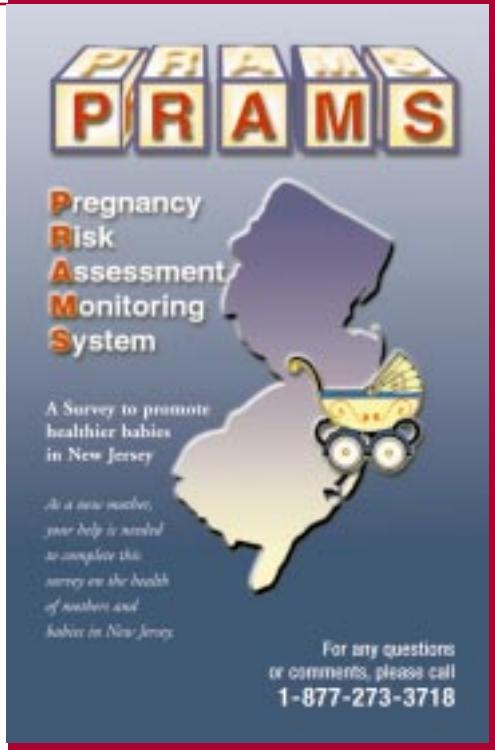
Adult Tobacco Survey (ATS)

The purpose of the ATS was to complete a baseline assessment of tobacco behavior, knowledge, and attitudes among New Jersey residents. Over 3600 adults completed telephone surveys between May and September 2000. Previously very little data were available on New Jersey's 18-24 population. For example, the 1999 New Jersey BRFSS interviewed only 200 young adults, making the sample too small to examine subgroups within this population. Therefore, young adults, ages 18 to 24, were oversampled (n=982) to increase the representation of this population. Additionally, the survey was conducted during the summer months to increase the likelihood of reaching college students at home. Smokers and recent quitters were also sampled at a higher rate than other adults. The interview consisted of several content areas: demographics, tobacco use, quitting, ETS at home and at work, medical practitioner advice, health status, tobacco knowledge, tobacco policy, health coverage, and media (media is addressed in detail

under "Media Tracking"). The unweighted response rate, a product of those screened and eligibles selected for an extended interview, was 46%. The participation rate at screening was 73.6%. Prevalence rates for cigarette use by gender, race, and age group are presented with confidence intervals in Appendix 2.

Pregnancy Risk Assessment Monitoring System (PRAMS)

The purpose of PRAMS was to determine the prevalence of tobacco use, ETS, and cessation barriers among pregnant women. Using the CDC's validated PRAMS instrument, data was collected on health insurance, prenatal care, labor and delivery, use of alcohol and tobacco, breastfeeding, and birth control, with supplemental questions developed to address quitting and ETS at home and at work. A sample of 2919 women, who had given birth between February and March 2000, was drawn from New Jersey's electronic birth certificates, oversampling for smokers and mothers of low birthweight babies. The self-administered survey was mailed twice to eligible women and then nonrespondents were followed up by telephone. The survey was completed by 2203 women, yielding a participation rate of 75%. The prevalence rate for cigarette use by race and age group are presented with confidence intervals in Appendix 2.



Media Tracking

Newspaper and Video Clipping

The purpose of the Media Tracking System was to identify and monitor media coverage of tobacco-related issues. Newspaper and video clippings were collected from media serving New Jersey and adjacent portions of New York and Pennsylvania. Newspaper clippings were collected for a two-month period (August 15 – October 16, 2000) by a clipping service using a list of keywords designed to identify news and editorial items related to specific areas of interest. News items were collected on areas including smoking/tobacco, ETS, anti-smoking campaigns, counter advertising, youth smoking prevention, tobacco sales, events sponsored by tobacco companies, policy and legislative initiatives, and the Master Settlement Agreement.

Adult Tobacco Survey: Media and Marketing Questions

The purpose of the ATS media questions was to measure residents' awareness of tobacco advertising and exposure to tobacco marketing and promotion. Marketing questions were asked of all 18–34 year olds who were sampled from the Adult Tobacco Survey. Specific media questions were asked of respondents in this age group who answered "yes" to the question, "In the past 6 months, have you seen any anti-tobacco television ads?" Affirmative respondents were asked questions to gauge their recall and awareness of anti-tobacco advertisements.

School Tobacco Survey (STS)

The purpose of the STS was to evaluate school tobacco policies and health education activities. This study utilized the School Health Education Profile/School Tobacco Survey Instruments (SHEP/STS) developed by the CDC. The core instrument (SHEP) for principals focused on various school health policy issues; a supplement (STS) specifically addressed issues related to tobacco policy, enforcement, tobacco advertising, and cessation programs. The core instrument for teachers/health educators focused on health education curriculum; the supplement covered questions related to smoking prevention, teaching methods, and cessation.

A total of 420 public schools were randomly selected from all public, charter, and vocational schools in New Jersey serving grades 6-12 in the Spring of 2000. The self-administered survey was mailed to schools twice and followed up by telephone. A total of 347 schools responded for a participation rate of 83%. Response rates varied among the four surveys: 74% SHEP-Principal, 74% STS-Principal, 75% SHEP-Health Educator, and 74% STS-Health Educator.

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This report utilizes the program goals of the Comprehensive Tobacco Control Program as a framework for illustrating tobacco use, attitudes, and policies throughout New Jersey. A description of each goal and the relevant baseline evaluation data follows. Disparities among population groups are not discussed separately but rather, are addressed across all goals where such disparities exist.

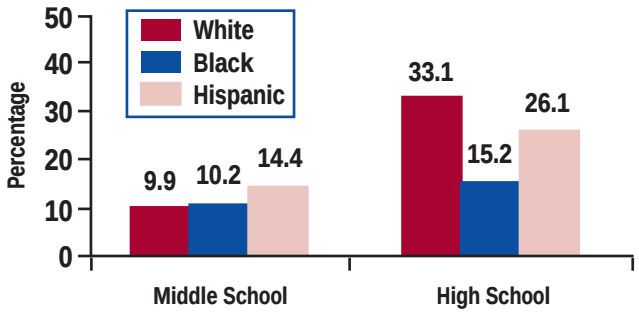
Goal 1: Decrease Smoking Initiation Among Youth and Young Adults

Historically, the overwhelming majority of adult smokers start using tobacco before the age of 18. However, with young adults (18-24 years old) now smoking at higher rates, an additional concern is whether more young adults are initiating tobacco use *after* the age of 18. Preventing the initiation of smoking among youth *and* young adults is critical in a comprehensive tobacco control program.[5] Assessing the attainment of this goal must focus on the tobacco use patterns of youth and young people, paying special attention to disparities. For detailed information on youth tobacco use in New Jersey, refer to *"1999 New Jersey Youth Tobacco Survey: A Statewide Report."* [6]

Youth Tobacco Use

Overall, 10.5% of New Jersey middle school students and 27.6% of high school students reported smoking cigarettes in the 30 days preceding the survey. † Current cigarette use was similar among different racial/ethnic groups for middle school students *(see Figure 2)*. There were, however, more dramatic racial differences in smoking rates among high school students. Black high school students (15.2%) had a lower prevalence of current cigarette use than either Hispanic (26.1%) or White (33.1%) high school students.

Figure 2: Current Cigarette Use Among Middle and High School Students by Race/Ethnicity



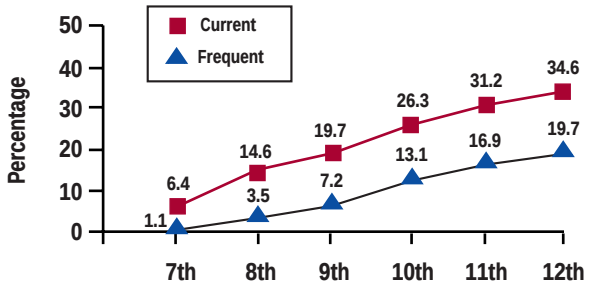
Source: NJYTS, 1999

† Current cigarette use among youth was defined as having smoked a cigarette on any day in the past 30 days.

Among 12th graders who smoke, more than half were frequent users, smoking on at least 20 days in the past month.

A notable proportion of youth were frequent smokers.[†] As shown in Figure 3, the proportion of frequent cigarette smokers increased significantly with each class year. Furthermore, as shown in Figure 4, White high school students (17.8%) were significantly more likely to be frequent cigarette smokers compared to Black high school students (4.8%).

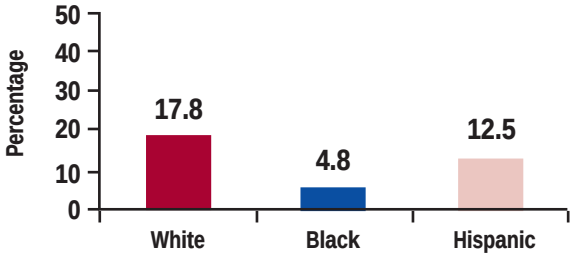
Figure 3: Frequent and Current Smoking by Grade



Source: NJYTS, 1999

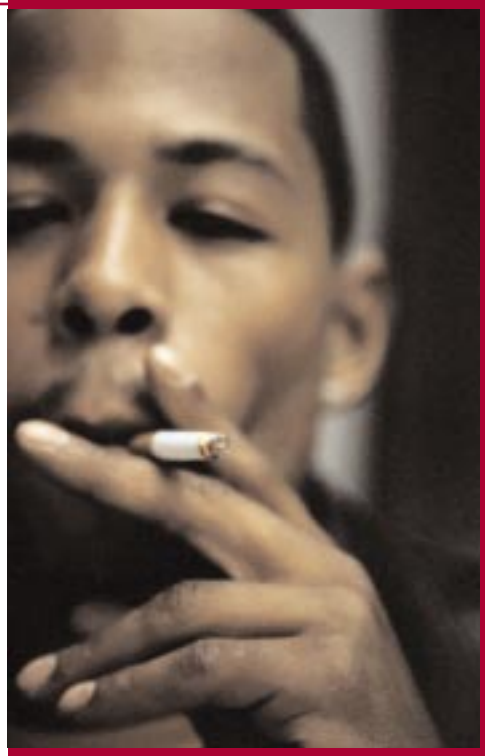
In addition to other activities, CDC's *Best Practices for Comprehensive Tobacco Control*,[4] identifies two strategies aimed at decreasing smoking initiation among youth: **(1)** ensure that merchants are not selling tobacco products to minors and **(2)** provide science based smoking prevention curriculum in every school. As of October 1, 2000, 75.4% of New Jersey's tobacco merchants were compliant with the Tobacco Age of Sale law based on federal Synar survey results.[7] However, despite laws prohibiting the sale of tobacco to minors, the YTS showed that over two-thirds of current youth smokers were not proofed nor were refused a sale because of their age.[6] A community needs only one vendor to sell tobacco to youth in order for youth to gain access to tobacco products.

Figure 4: Frequent Smoking Among High School Students by Race/Ethnicity



Source: NJYTS, 1999

[†] Frequent cigarette use among youth was defined as having smoked cigarettes on 20 or more days in the past 30 days.

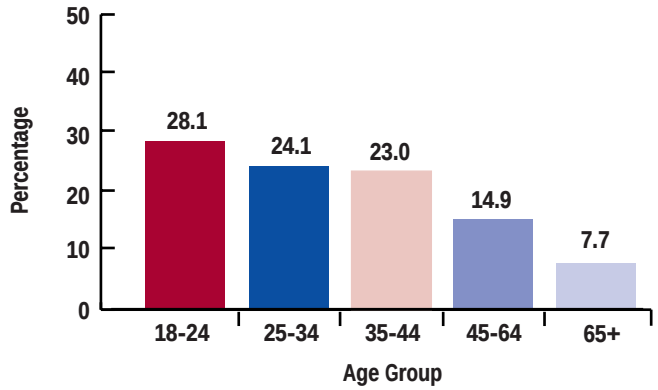


Lastly, data from the School Tobacco Survey found that few teachers (34%) received staff development training on tobacco use prevention in the past two years, even though the majority (77%) expressed wanting to receive training on this issue.

Tobacco Use Among Young Adults (18-24)

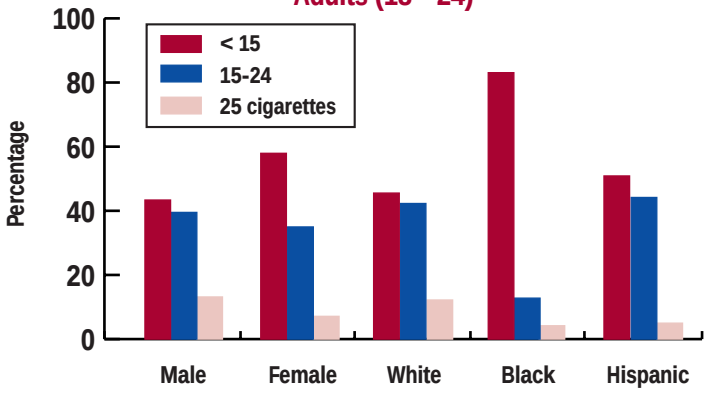
As shown in Figure 5, young adults, 18-24 year olds, had a higher rate of current cigarette use (28.1%) than all other adult age groups (25+). Current cigarette use was similar for males (29.3%) and females (26.7%) in this age group. However, significant differences emerged among the racial/ethnic groups. White young adults reported the highest rate of current cigarette smoking, with 1 out of 3 White young adults smoking. In contrast, Black young adults reported the lowest rate of current smoking (15%).

Figure 5: Current Smoking by Age Group



Source: NJATS, 2000

Figure 6: Daily Consumption Patterns for Young Adults (18 - 24)

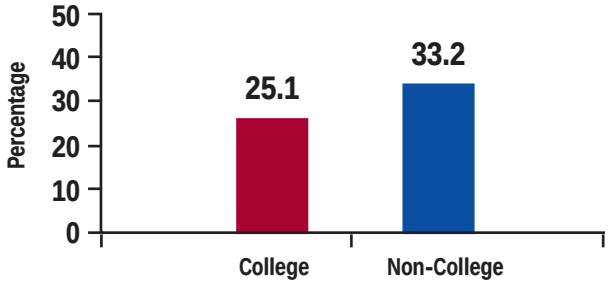


Source: NJATS, 2000

Half of young adult smokers smoked less than 15 cigarettes daily; one out of ten are heavy smokers (25+ cigarettes daily). While few young adult smokers were heavy smokers, those who were tended to be White or male *(see Figure 6)*. Black young adult smokers overwhelmingly were light smokers (83%).

Implementing tobacco prevention programs on college campuses can potentially reach a significant number of young adults in New Jersey.

Figure 7: Current Smoking by College Status Among Young Adults (18-24)



Source: NJATS, 2000

Cigarette use among young adults was also examined by college status. Almost two thirds (64%) of the young adults sampled, reported that they were enrolled as either part-time or full-time college students. As shown in Figure 7, one out of four young adults in college were current smokers compared to one out of three non-college young adults. Nonetheless, implementing tobacco prevention programs on college campuses can potentially reach a significant number of young adults in New Jersey.

Goal 2: Increase Smoking Cessation in Youth and Adults

During the past decade, the rates of cigarette smoking in New Jersey have been slightly below the nationwide average and there has been no significant change in adult tobacco use in the State *(see Figure 8)*. Increasing initiation of effective quitting activities is essential to reduce smoking prevalence among all New Jerseyans. Furthermore, "programs that successfully assist young and adult smokers in quitting can produce a quicker and probably larger short term public health benefit than any other component of a comprehensive tobacco control program."[8]

When examining the achievement of this goal, it will be important to look for a reduction in the prevalence of cigarette use among youth, adults, and high risk sub-population groups, such as pregnant women. It is equally important to examine whether smokers in New Jersey are attempting to quit smoking, whether clinicians provide advice to quit, and what methods smokers use to quit. The baseline findings summarized below lay the foundation for monitoring the progress toward this goal in the coming years.

Cigarette Use in New Jersey

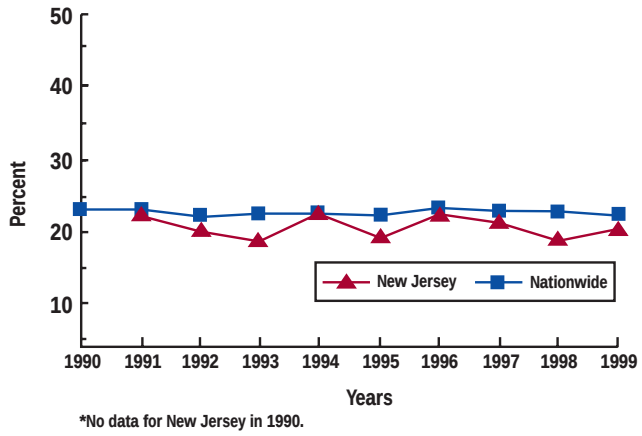
As mentioned previously, cigarette use among middle and high school students in New Jersey was notable and young adults (18-24 year olds) had the highest rate of cigarette smoking than any other age group. Overall, 18.4% of New Jersey adults (18 years and older) were current cigarette smokers.† Males were more likely to be current cigarette smokers (20.4%) than females (16.6%); no differences were found with respect to race/ethnicity.

Smoking during pregnancy nearly doubles a woman's risk of having a low-birthweight baby.[8] After pregnancy, a smoking mother risks exposing her newborn to environmental tobacco smoke. Clearly, pregnant women are an important high risk sub-population to examine because of the impact on the baby and the mother. As shown in Figure 9, one in five women (18.6%) were cigarette smokers in the three months prior to

† Current cigarette use among adults was defined as ever smoking greater than 100 cigarettes and currently smoking every day or on some days.

There has been no significant change in adult tobacco use in New Jersey within the past decade.

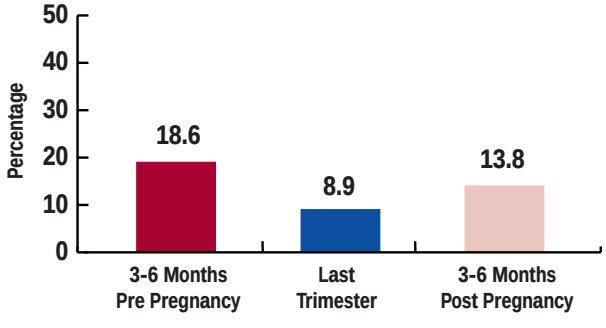
Figure 8: Current Smokers New Jersey vs. Nationwide



*No data for New Jersey in 1990.

Source: CDC, BRFSS, 1990-1999

Figure 9: Smoking Before, During & After Pregnancy

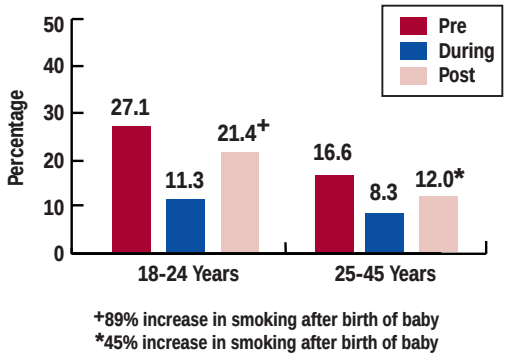


Source: NJ PRAMS, 2000

Relapse among pregnant women was considerable; programs should be designed to help new moms remain smoke-free.

becoming pregnant. Smoking rates dropped to 8.9% during their pregnancy. However, within three to six months after the birth of their baby, women who quit ***during*** pregnancy began smoking again, demonstrating a 55% increase in smoking prevalence. Furthermore, younger women (18-24) had a more dramatic *increase* in smoking (89%) after the birth of their baby than older women (45%), as depicted in Figure 10. White pregnant women had higher rates of smoking prior to, during, and post pregnancy (22%, 11%, 17%, respectively) than Black (18%, 10%, 14%) or Hispanic (14%, 4%, 9%) women. However, their patterns of quitting and resuming smoking did not differ from the overall trend. The relapse among pregnant women, who quit smoking and then returned to smoking after their baby was born, was notable; programs aimed at helping new mothers remain smoke-free could be implemented via well-baby visits and gynecological office visits.

Figure 10. Cigarette Smoking Among Pregnant Women by Age Group



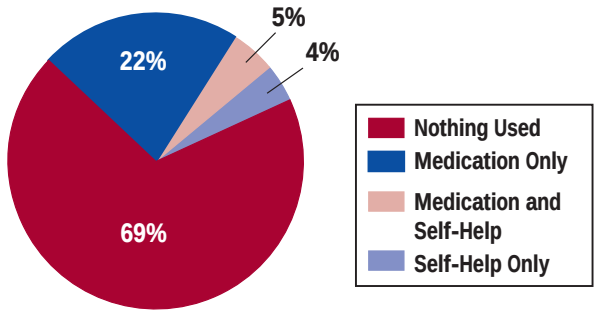
+89% increase in smoking after birth of baby
*45% increase in smoking after birth of baby

Source: NJ PRAMS, 2000

Quit Successes

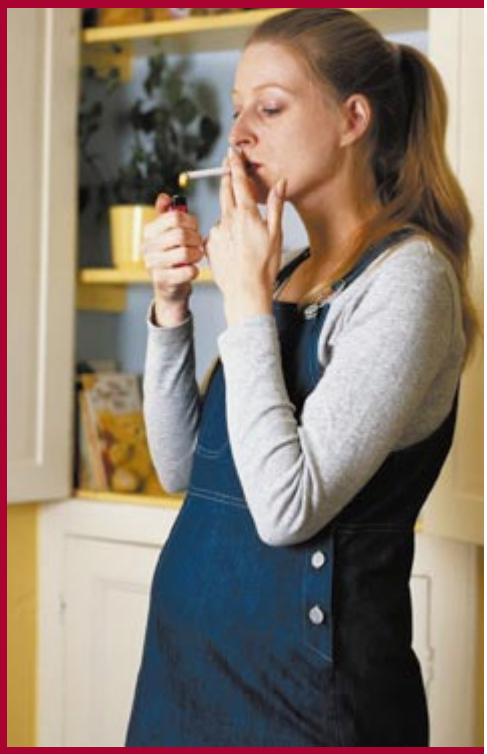
Twenty-nine percent of adults were former smokers.† Almost two-thirds (65.8%) of these former smokers were older than 45 years of age. Of former smokers, 8.3% quit in the past year. More than two-thirds of those who quit in the past year did so with no assistance while about a quarter used some form of medication *(see Figure 11)*. The most popular form of nicotine dependence medication was

Figure 11: Recent Quitters and How They Quit



Source: NJATS, 2000

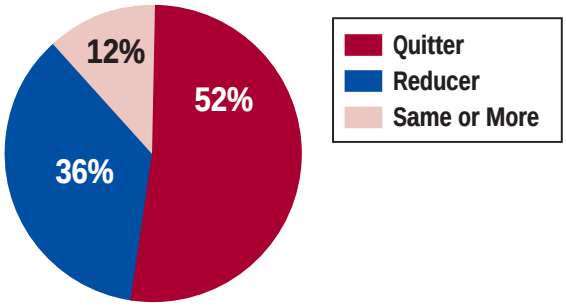
† Former smokers were defined as a person who smoked 100 cigarettes in their lifetime but did not currently smoke.



the nicotine patch (71.3%), followed by Zyban™ (25.3%) and/or nicotine gum (23.1%).

Among pregnant women, most smokers changed their tobacco use behavior over the course of their pregnancy; half of pregnant women actually quit smoking and over a third (36%) reduced their cigarette consumption during pregnancy *(see Figure 12)*.

Figure 12: Change in Smoking Status during Pregnancy

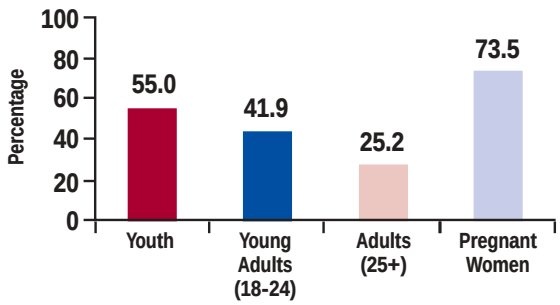


Source: NJ PRAMS, 2000

Quit Attempts

Overall, a significant proportion of all smokers in New Jersey made a serious, but failed, quit attempt in the past year. Roughly half of youth and young adult smokers reported at least one quit attempt while approximately one quarter of adults reported a quit attempt in the past year. Almost three quarters of pregnant women tried to quit in the past year. *(see Figure 13)*. On average, an adult smoker made approximately two quit attempts in the past year. This trend held for all age groups, genders, and racial/ethnic groups.

Figure 13: Smoking Quit Attempts



Sources: NJYTS, 1999; NJATS, 2000; NJ PRAMS, 2000

Clinician Counseling for Quitting

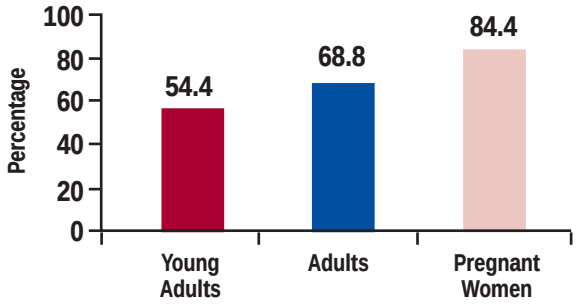
The U.S. Public Health Service developed *Clinical Practice Guidelines for Tobacco Cessation* to provide clinically effective strategies for treating tobacco use and dependence.[9] The guidelines are intended to become part of standard care and recommend that clinicians treat patients using the "5 A's" (Ask, Advise, Assess, Assist, and Arrange). The first step in the process is to "Ask" or systematically identify all tobacco users at every visit.

Of those who had seen a doctor in the past 12 months, less than half (49%) of middle and high school students in New Jersey were asked whether or not they smoked by their physician. Approximately two-thirds of young adults and adults were asked about smoking status by their physician. The next step for clinicians is to "Advise" or strongly urge all tobacco users to

Less than half of middle and high school students in New Jersey were asked about smoking status by their physician.

quit. As depicted in Figure 14, more than two-thirds of young adult and adult smokers and recent quitters reported being advised by their physician to quit. Pregnant smokers were most likely to be advised by their physician to quit smoking (84.4%).

Figure 14: Clinician Counseling for Quitting



Sources: NJATS, 2000; NJ PRAMS, 2000

Method of Quitting

Few sources exist to help youth smokers quit. The School Tobacco Survey showed that little more than half (56%) of public middle and high schools in New Jersey offered their students on- or off-site referrals for tobacco dependence treatment. Not surprisingly, current youth smokers utilized few methods of quitting. A small proportion attended a smoking cessation program (6%), used an over the counter nicotine replacement therapy (5%), or utilized a prescription (4%). It is evident from the data presented that little attention is given to assisting young smokers who want to quit. Previous research confirms that there are very few effective cessation programs for youth and clearly, more exploration is needed in this area.[5]

Among current smokers, the most commonly used method to attempt quitting was medication (21%). Other methods used by current smokers were self-help material (8.2%), attending a program (2.4%), and calling a telephone helpline (1.1%).

Among adults who have not yet tried to quit, more than a third (39%) indicated that they would use a toll-free number to get information on quitting and almost half (48%) with Internet access indicated that they would use the Internet to get information on quitting. The State's recent initiatives with New Jersey Quitline,™ New Jersey Quitnet,™ and New Jersey Quitcenters will provide smokers in New Jersey with needed cessation resources.

Goal 3: Decrease Exposure to Environmental Tobacco Smoke

There is considerable evidence that environmental tobacco smoke (ETS) exposure presents a serious risk to public health.[10] Smoking restrictions at school, at home, and at the workplace can contribute significantly to the reduction of ETS. Furthermore, increasing the awareness of the harmful effects of ETS can improve New Jersey residents' attitudes toward ETS and their compliance with broader restrictions. Lastly, a smoke-free environment establishes a positive social norm that facilitates smoking prevention and encourages quitting.

ETS at School

Those most affected by ETS are children. Given the amount of time that youth spend at school, tobacco policies at schools are a critical means to reducing ETS exposure among youth.

According to the School Tobacco Survey, the overwhelming majority of schools (97%) had policies in place that prohibit the use of cigarettes by students at school. However, only 1 out of 3 (32.6%) schools had comprehensive tobacco control policies† that prohibited the use of multiple tobacco products by students ***and*** faculty indoors, on school grounds, in school vehicles, and at school sponsored events.[11] Any use of tobacco at school can give parents and children the impression that school administrators are not making an exhaustive effort to restrict smoking behavior.

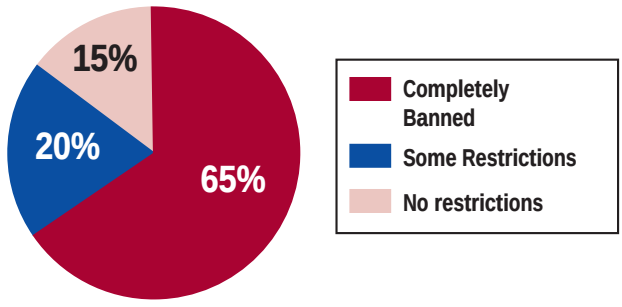
Only 1 out of 3 schools had comprehensive tobacco control policies that prohibited the use of multiple tobacco products by students and faculty indoors, on school grounds, in school vehicles, and at school sponsored events.

ETS in the Home

People spend more time in their homes than anywhere else. As a result, the home can be a chief source of ETS exposure. Almost half (44%) of New Jersey youth reported that they lived with someone who smokes cigarettes and approximately one out of four adults (22%) reported someone smoking in their home in the past 30 days.

As shown in Figure 15, two-thirds of all adults reported that they completely banned smoking in their homes (65%). Approximately, 20% of New Jersey residents instituted some smoking restrictions while 15% had no restrictions on smoking in their homes.

Figure 15: Smoking Policies in the Home



Source: NJATS, 2000

† Our measure served as proxy for comprehensive policies as defined by the CDC. The STS/SHEP instruments did not explicitly address school visitors or 24-hour enforcement when inquiring about tobacco policy.

Workers in restaurants, bars, and factories were least likely to be protected from ETS by workplace smoking policies. Tobacco control efforts should focus on promoting smoke-free policies in these work settings.

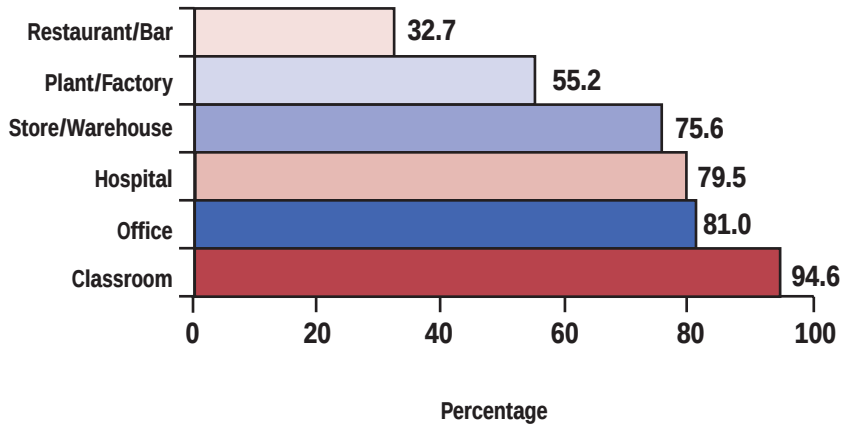
However, examining restrictions by smoking status showed current smokers (31%) were significantly less likely to ban smoking in their home relative to people who *never* smoked (72%) or former smokers (67%). New Jersey residents, particularly smokers, should be encouraged to adopt smoke-free homes for the benefit of all household members.

Pregnant women reported cigarette smoke in their home as more prevalent during pregnancy than after birth. During pregnancy, 14.6% indicated that someone, other than the mother, smoked inside the home. After the birth of the child, rates of smoking in the home decreased to 7.9%. ETS at home can and should be minimized to protect pregnant women and their infants from its adverse effects.

ETS at the Workplace

Overall, three-quarters of adults reported that their workplace has a smoke-free policy.† As shown in Figure 16, restaurants and bars were least likely to have a smoke-free policy while schools were most likely to be smoke-free. Additionally, one out of 10 adults who worked in a plant or factory reported that there was ***no*** "official smoking policy" for indoor work or common areas. New Jersey law requires smoking policies to be in place for private worksites with 50 or more employees. However, this policy may not be provided or enforced at these work settings. In contrast, the overwhelming majority of adults from other work settings reported official tobacco policies.

Figure 16: Smoke-free Policy in Public Areas by Work Setting

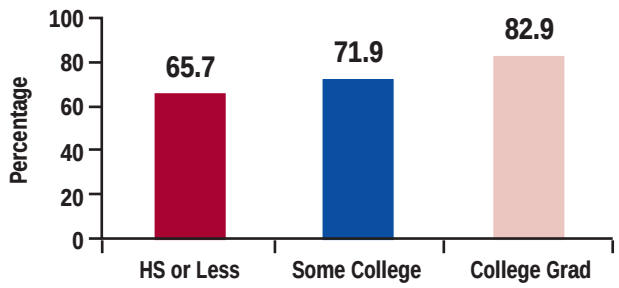


Source: NJATS, 2000

† A smoke-free workplace was defined as a place of work that has an official policy banning smoking in all indoor public and common areas, and in work areas.

A significant relationship between education and exposure to ETS at the workplace showed that adults with at least a college degree were more likely to work in smoke-free environments than adults with a high school education or less *(see Figure 17)*. This finding is most likely a function of work setting (blue-collar vs. white-collar) rather than the individual's educational level. Concentrated efforts towards promoting smoke-free policies in factory settings and other blue-collar settings are necessary.

Figure 17: Smoke-free Worksite by Educational Level

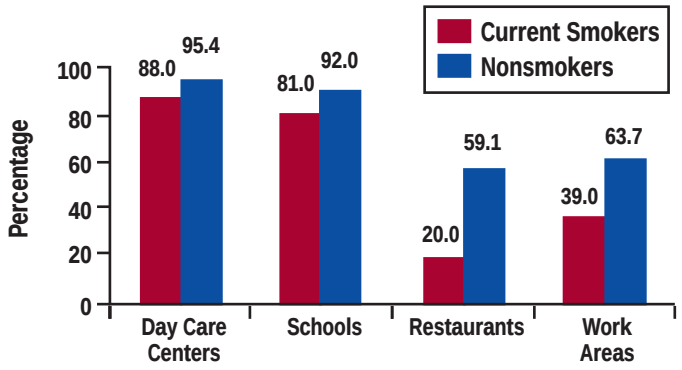


Source: NJATS, 2000

Attitudes toward ETS

As shown in Figure 18, public opinion about whether to restrict or ban smoking varied across locations. Results reflected broad support for a total ban on the use of cigarettes in areas where youth were present, regardless of one's own smoking behavior. Almost all adults felt that smoking should be completely prohibited in schools and day care centers. There was, however, less support for completely restricting smoking in restaurants and work areas. Approximately half of all adults believed that smoking should be banned in work and restaurant areas. Not surprisingly, current smokers were significantly less likely than nonsmokers to support a complete ban on smoking in ***these*** locations. Indoor smoking restrictions will continue to be a contentious issue amid other tobacco control efforts and will likely be a good measure of the State's progress toward reducing ETS exposure among New Jersey residents and improving the social norms around tobacco use.

Figure 18: Percent of Adults who Favor Complete Smoking Ban in Selected Locations



Source: NJATS, 2000

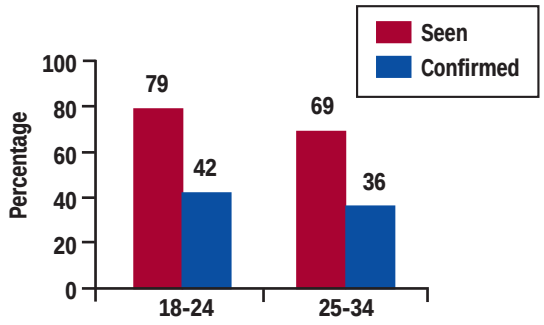
Goal 4: Decrease the Acceptability of Tobacco Use

Reducing the acceptability of tobacco use among New Jersey residents is a key element in the State's comprehensive tobacco control program. Affecting the social norm can advance efforts to prevent youth tobacco initiation, increase cessation, and reduce ETS. Anti-tobacco media campaigns will be a powerful strategy aimed at changing residents' perceptions of social norms around tobacco. Research shows that aggressive media campaigns can be effective in denormalizing smoking and reducing cigarette consumption. In states with aggressive media campaigns, such as California and Massachusetts, per capita consumption of cigarettes fell faster than in the rest of the United States.[12]

Anti-Tobacco Promotional Efforts

When asked if they had seen an anti-tobacco advertisement in the past six months, 79% of 18-24 year olds and 69% of 25-34 year olds said they had seen an advertisement *(see Figure 19)*. However, when asked to describe the advertisement, less than half, in both age groups, were able to correctly describe them.

Figure 19: Anti-Tobacco Ad Awareness by Age Group



Source: NJATS, 2000

Respondents were able to describe 31 different anti-tobacco ads. Other responses could not be linked to a specific ad but confirmed awareness of general ad campaigns or flight themes, particularly of the American Legacy Foundation's (ALF) Truth campaign and its "Daily Dose" and "1-in-3" flights. Of confirmed ads, 59% were sponsored by the ALF and 33% were Phillip Morris youth smoking prevention and company image ads, including "Think. Don't Smoke." and "The People of Phillip Morris." Responses from those unable to confirm awareness of an ad or campaign suggested they had been exposed to general anti-tobacco themes and messages *(e.g., "smoking is bad for you")*.

Responsibility for Smokers' Health Problems

When asked about who was to blame for the health problems faced by smokers, half of New Jersey adults felt smokers were completely (24%) or mostly (27%) to blame. Fewer respondents felt that tobacco companies were completely (7%) or mostly (22%) to blame or that both smokers and tobacco companies (19%) shared the blame. Significantly more current smokers than nonsmokers (58.0% vs. 49.1%) placed accountability for tobacco related illnesses on the smoker. The findings suggest that perhaps New Jersey smokers have not been exposed to the highly effective anti-tobacco advertisements that uncover the deceptive tactics of the tobacco industry. Research shows that anti-tobacco ads that highlight tobacco industry manipulation help smokers redirect their feelings of guilt over their own smoking to anger toward the tobacco industry.[12]

Newspaper Clippings

A total of 123 tobacco-related newspaper clippings from 59 different publications were identified during a two-month clipping period (August 15 to October 16, 2000). The majority of clippings (58%) were from daily papers and most (80.4%) were general news articles as opposed to editorial columns (9%) and letters to the editor (8%). Of the editorials (columns and letters combined), 57% were related to an ordinance or law.

Local issues comprised 47% of the clippings, half of which were in the category of programs/classes/events. Approximately 34% were classified as State issues, and 17% of the clippings were of national relevance.

The most frequent topics covered in these articles focused on ordinance/laws (41%) and programs/events/classes (20%). Of the articles about programs, five were concerned with anti-tobacco funds, and five were about Communities Against Tobacco (CAT) coalition activities. ETS comprised 12% of the articles and 10% dealt with the topic of youth or college.

It is anticipated that the number of articles related to CAT activities and youth and college students will increase in the coming year in response to State programs targeting these areas. Media tracking is a valuable tool in monitoring the progress of local program activities such as CAT coalitions.

Data on tobacco-related media activities and the public opinion of residents provide a good look at how New Jerseyans perceive issues relating to tobacco. Tobacco control media efforts will no doubt be a crucial tool in the State's campaign to minimize the acceptability of tobacco.

New Jersey smokers are seriously interested in quitting and are looking for programs to help them quit.

Summary

Initiation of Tobacco Use

Results from the baseline evaluation showed a steady increase in 30-day cigarette prevalence from middle school students (10.5%) to high school students (27.6%). The findings suggest that the State's efforts should give considerable attention to the ***prevention*** of smoking initiation. Yet data from the STS found that few teachers received staff development training on tobacco use prevention in the past 2 years, even though the majority expressed wanting to receive training on this issue. Perhaps smoking prevention curricula should go beyond simply the delivery of health information to include activities that promote youth advocacy and social change, particularly given the State's complementary effort to create a youth-led movement against tobacco.

The data reported here were consistent with national findings that indicated a high rate of smoking among young adults.[13] Relative to all other age groups, young adults, ages 18 to 24, reported the highest level of smoking prevalence in New Jersey (28.1%). Based on the evidence, college-based interventions should be an important component towards achieving the State's goal to prevent life-long nicotine dependence.

Tobacco Dependence Treatment

The proportion of frequent cigarette smokers increased steadily with each class year from 7th to 12th grade, indicating that smoking cessation resources need to be available to younger age groups. Yet only half of all New Jersey youth were asked about their smoking status during a recent visit to their physician. Brief office interventions could provide young smokers with cessation resources they have been unable to find elsewhere. Furthermore, only half of public middle and high schools provided their students with referrals for tobacco cessation.

Certainly, the introduction of New Jersey Quitnet™ and New Jersey Quitline™ supplies all New Jerseyans, including youth, with a free and confidential form of support for smoking cessation. In addition, some schools will be funded to provide the American Lung Association NOT (Not-On-Tobacco) nicotine dependence program for adolescents. DHSS also expects to begin subsidizing Nicotine Replacement Therapy (NRT) for people using the New Jersey Quitcenters. Future evaluation will monitor the success of New Jersey Quitnet™ and New Jersey Quitline™ in reaching this important population.

Environmental Tobacco Smoke

Youth reported an alarmingly high level of ETS exposure; almost half of all youth lived with someone who smoked cigarettes. The American Academy of Pediatricians recommends that pediatricians take smoking histories from parents and guardians of children.[14] Parents with children living at home should be counseled on the potentially harmful effects of smoking on fetal and child health. Future baseline data collection will determine whether all types of health care providers identify smokers and counsel them to quit.

Policies that restrict or ban smoking substantially reduce exposure to ETS. Despite this, only one out of three schools have a comprehensive tobacco control policy that bans any use of tobacco by students, faculty, and staff. Many school policymakers recognize the need for school-based tobacco policies. Almost all schools prohibit tobacco use by students. However, it is necessary to educate these policymakers about the importance of comprehensive tobacco control policies.

Additionally, the potential impact of workplace smoking restrictions cannot be underestimated. Besides reducing health care costs from ETS, the US Environmental Protection Agency estimates that smoking restrictions would result in a savings of $4 to $8 billion per year in housekeeping and maintenance expenses.[15]

Efforts to improve indoor air quality at home, at work, and at school should be a priority for the State's tobacco control program.

Acceptability of Tobacco Use

Constructing media messages to change New Jersey residents' perceptions of social norms will be an important strategy in reducing cigarette consumption, particularly among young adults. About half of 18-24 year olds were able to confirm seeing an anti-tobacco advertisement. But given the high rate of smoking prevalence in this age group, current media messages are not reaching this age group. The New Jersey Anti-Tobacco Media and Communications Campaign began media activities to target youth (<18) in February 2001. As the New Jersey Anti-Tobacco Media and Communications Campaign expands, a major challenge will be to develop messages that break through the noise of other media to reach and affect young adults (18-24) in addition to youth under 18.

Community-based activities will also become increasingly vital in decreasing the acceptability of tobacco use among residents. Tracking television, radio, and print media will become a focal point of process evaluation efforts that monitor the progress of community partners.

New Jersey officially launched its youth media campaign in February 2001.

Conclusion

Several conclusions presented clearly warrant additional attention and evaluation including programs aimed at youth and young adults, restrictive smoking policies, aggressive media campaigns, and community-based activities. Even a modest reduction in tobacco consumption, triggered by successful interventions, will bring tremendous public health gains to New Jersey.

Many people often look for dramatic results in one to three years when a longer time frame is a basic requirement for tracking changes in tobacco consumption and prevalence. As such, consistent funding for both programming and evaluation is critical to determine effectiveness. New Jersey is currently ranked 10th for the number of cigarette packages sold and taxed, per capita (where 1 indicates lowest cigarette sales). At 71% of the recommended *lower* estimate funding level in CDC's "*Best Practices*," New Jersey currently ranks 11th for tobacco control funding (where 1 indicates highest funding) and follows CDC's elements for comprehensive tobacco control programming.[1] However, any significant cutbacks in funding would curtail the State's ability to achieve long-term positive results with regard to tobacco use in New Jersey.

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Abbreviations and Acronyms

ALF: The American Legacy Foundation was established to reduce tobacco usage in the United States as outlined in the Master Settlement Agreement.

ATS: Adult Tobacco Survey is a population-based survey designed to examine the tobacco behavior, knowledge, and attitudes of New Jersey adults. The survey is an ongoing data collection system.

BRFSS: Behavioral Risk Factor Surveillance System is an ongoing nationwide surveillance system supported by the CDC and conducted in all 50 states.

CAT: Communities Against Tobacco is a network of local coalitions in each New Jersey county. These coalitions are joined together with a common mission to change or establish community norms, attitudes and behaviors around tobacco use.

CDC: Centers for Disease Control and Prevention is an agency of the US Department of Health and Human Services.

ETS: Environmental Tobacco Smoke is a mixture of the smoke given off by the burning end of a cigarette, pipe, or cigar and the smoke exhaled from the lungs of smokers.

DHSS: Department of Health and Senior Services, State of New Jersey.

LINCS: The Local Information Network Communication System is an electronic public health information system designed to enhance the identification and containment of diseases and hazardous conditions that threaten the public's health.

N-O-T: Not-On-Tobacco is a quitting program designed specifically for teens developed by the American Lung Association, in collaboration with West Virginia University.

NRT: Nicotine Replacement Therapy helps relieve some of the withdrawal symptoms people experience when they quit smoking. NRT includes products such as nicotine gum, nicotine nasal spray, the nicotine patch, a nicotine inhaler, and the non-nicotine pill, Zyban.™

PRAMS: Pregnancy Risk Assessment Monitoring System is a population-based survey of women who recently gave birth. The 2000 PRAMS was the first time the survey was conducted in New Jersey.

REBEL: Reaching Everyone By Exposing Lies is an initiative developed by and for teens in New Jersey to combat tobacco industry marketing tactics.

SHEP: The School Health Education Profiles monitor characteristics of health education in middle schools and high schools. The profiles are CDC-developed school-based surveys conducted by state and local education agencies.

STS: The School Tobacco Survey is an additional module included in the SHEP to evaluate school tobacco policies and health education activities.

TASE: Tobacco Age of Sale Enforcement includes merchant education and random unannounced compliance check inspections by DHSS staff or local health officers accompanied by underage youth.

UMDNJ: The University of Medicine & Dentistry of New Jersey is the State's university of the health sciences and includes eight schools on five campuses.

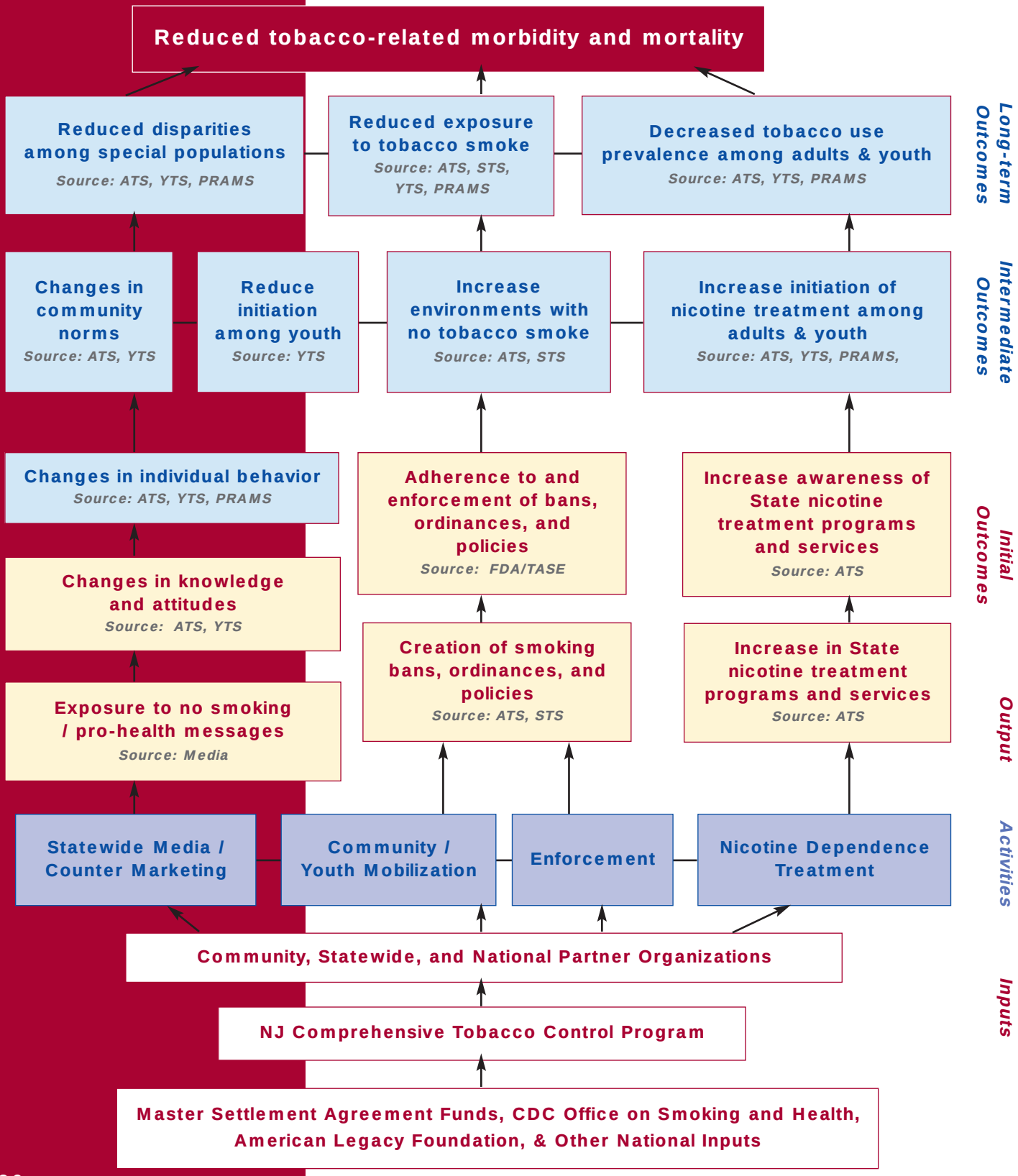
YRBS: The Youth Risk Behavior Surveillance System includes a national school-based survey conducted by CDC as well as state, territorial, and local school-based surveys conducted by education and health agencies.

YTS: Youth Tobacco Survey is a component of CDC's Youth Tobacco Surveillance and Evaluation System. The 1999 YTS was the first time the survey was conducted in New Jersey.

Appendix 1

New Jersey Comprehensive Tobacco Control Program

Logic Model with Baseline Evaluation Data Sources



Appendix 2

Prevalance of Cigarette Use in New Jersey by Population Groups

	Middle School*		High School*		Young Adults (18-24)†		Adults(18+)†		Pregnant Women‡	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Gender										
Male	9.9	1.9	26.4	3.0	29.3	5.1	20.4	2.1	N/A	
Female	11.0	2.0	28.4	3.3	26.7	4.4	16.6	1.7		
Race/Ethnicity										
White	9.9	2.2	33.1	3.0	33.6	4.5	18.5	1.5	11.0	1.3
Black	10.2	3.1	15.2	3.5	15.0	7.4	19.1	4.4	9.6	2.4
Hispanic	14.4	2.9	26.1	5.6	22.0	7.5	17.3	3.9	4.4	1.7
Age Group										
18-24							28.1	3.4	11.3	2.2
25-45	N/A		N/A		N/A		23.3	2.4	8.3	1.0
46-64							14.7	2.3		
65+							7.7	2.2		
Total	10.5	1.8	27.6	2.6	28.1	3.4	18.4	1.3	8.9	0.9

* Current cigarette use was defined as having smoked any day in the last 30 days (Source: YTS)

† Current cigarette use was defined as ever smoking at least 100 cigarettes and currently smoking everyday or some days (Source: ATS)

‡ Cigarette use during pregnancy was defined as having smoked in the last 3 months of pregnancy (Source: PRAMS)

Prepared by:

University of Medicine and Dentistry
of New Jersey – School of Public Health

Prepared for:

New Jersey Department
of Health and Senior Services

Donald T. DiFrancesco, Acting Governor
Christine Grant, Commissioner

http://www.state.nj.us/health/as/tcpbaseline.pdf